

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An automatic process of color restoration of a silver image (3) whose color is altered with regard to ~~the~~ an original color of said silver image (3); the color alteration not occurring evenly, spatially in the plane of the image, and according to a direction parallel to one main axis (19) of the image; said process comprises the ~~following~~ steps of:
 - a) ~~digitize~~ digitizing the altered silver image by using a measuring scale of optical densities to create a digital image;
 - b) ~~filter~~ filtering all the pixels of the ~~digitized~~ digital image;
 - c) ~~divide~~ dividing the digital image (12) into pixel strips (18) arranged perpendicular to ~~the~~ a direction of ~~the~~ a main axis (19) of the image according to which the color alteration occurs, ~~the~~ a joining of all the pixels of each strip representing all the pixels of the digital image;
 - d) ~~calculate~~, calculating for each pixel strip, and for each of the color channels (40), (50), (60) forming the image, a distribution of the optical densities of the pixels forming said strip;
 - e) ~~calculate~~, calculating for each of said distributions of said step d), a top crude reference value of optical density (36), and a bottom crude reference value of optical density (37);
 - f) ~~calculate~~, calculating from all the top and bottom crude reference values of said step e), respectively the corresponding top filtered reference values of optical density (46) and bottom filtered reference values of optical density (47);
 - g) ~~determine~~, determining from the top and bottom filtered reference values of optical density of said step f), respectively the top reference curves of optical density (42) and bottom reference curves of optical density (43), said reference curves being representative of ~~the~~ a color degradation profile of the image;
 - h) ~~determine~~, determining for each of the color channels forming the image, and from ~~the~~ a maximum value of optical density (46M),

~~(56M), (66M)~~ of the top reference curve of optical density ~~(42)~~, ~~the a~~ pixel strip of least degradation ~~(44M), (54M), (64M)~~;

i) ~~apply~~ applying to each pixel strip ~~(44), (54), (64)~~ of the digital image other than the pixel strip of least degradation ~~(44M), (54M), (64M)~~, and to each of the color channels forming the image, a linear transformation enabling ~~the a~~ transformation of the optical density filtered values ~~(46), (56), (66), (47), (57), (67)~~ placed on the top reference curve ~~(42), (52), (62)~~ and on the bottom reference curve ~~(43), (53), (63)~~ of optical density of said each pixel strip ~~(44), (54), (64)~~, respectively into top ~~(46M), (56M), (66M)~~ and bottom ~~(47M), (57M), (67M)~~ values of optical density of the pixel strip of least degradation.

2. (currently amended) The process according to Claim 1, wherein ~~the~~ an initial filtering of the altered digital image is performed by using mathematical morphology operators of the type order opening (n) followed by order closing (n), with (n) being an integer.
3. (currently amended) The process according to ~~any one of~~ Claims 1 ~~or~~ 2, wherein the top filtered reference values of optical density ~~(46), (56), (66)~~, and the bottom filtered reference values of optical density ~~(47), (57), (67)~~, are calculated by using a filtering of the image ~~(12)~~ by the method of following ~~the a~~ maxima in each pixel strip ~~(18)~~.
4. (currently amended) The process according to ~~any one of~~ Claims 1 ~~to~~ 3, wherein the digital image ~~(12)~~ is divided into pixel strips ~~(18)~~ according to adjacent parallel strips having no common pixel between them.
5. (currently amended) The process according to ~~any one of~~ Claims 1 ~~to~~ 3, wherein the digital image ~~(12)~~ is divided into pixel strips ~~(18)~~ according to parallel strips partially overlapping by twos according to at least one row of pixels.
6. (currently amended) The process according to ~~any one of the previous claims,~~ claim 1, wherein the top ~~(36)~~ and bottom ~~(37)~~ crude reference

values of optical density correspond respectively to ~~the~~ optical density distribution curves ~~(31), (32)~~ placed in ~~the~~ a neighborhood of ~~the~~ maximum ~~(30)~~ and minimum ~~(34)~~ optical density curves of said distribution.

7. (currently amended) The process according to ~~any one of the~~ Claims 1 to 5, wherein the top ~~(39)~~ and bottom ~~(38)~~ crude reference values of optical density correspond respectively to ~~the~~ a maximum ~~(30)~~ and minimum ~~(34)~~ optical density distribution curves of said distribution.
8. (currently amended) The process according to ~~any one of the previous claims,~~ claim 1, wherein the strip of least degradation ~~(44M), (54M), (64M)~~ is a pixel strip of the image comprising the pixel of maximum optical density value ~~(46M), (56M), (66M)~~ of the top reference curve of optical density ~~(42), (52), (62)~~.
9. (currently amended) The process according to ~~any one of the~~ Claims 1, to 7, wherein the strip of least degradation is the pixel strip comprising a single row of pixels, said strip passing through ~~the~~ a center ~~(20)~~ of the image ~~(12)~~.
10. (currently amended) The process according to ~~any one of the previous claims,~~ claim 1, wherein the planes of the color channels forming the image are the red, green and blue ones.